REMARKS

Reconsideration of this Application is respectfully requested. In view of the arguments presented below, Applicants assert that Claims 1-7 and 9-36 are patentable over the cited art of record, which fails to teach or suggest, for example, controlling the power supply voltage of a processor to maintain a substantially stable crosstalk level within the processor.

35 U.S.C. Section 103 Rejections

Paragraph 2 of the above referenced Office Action rejects Claims 1,4,9-10, 14, 17-18, 22, 25, 26, 30, 33, 35 and 36 under 35 U.S.C. 103(a) as allegedly being unpatentable over Bausch et al. (U.S. Pat. No. 6304824) in view of Talbot (U.S. Pat. No. 6448815). Applicants respectfully traverse.

The claimed invention is directed towards maintaining a stable level of crosstalk across a could temperature range. Independent Claims 1, 9, and 17 recite embodiments for dynamically controlling power supply voltage coupled to an integrated circuit to maintain a stable level of crosstalk across a temperature range. By maintaining a stable level of crosstalk, the claimed invention enables an optimum balance of design factors such as increased component density, increased clock speed, and increased heat dissipation to obtain maximum performance. The independent claims recite regulating the voltage level of an integrated circuit device in order to control a level of crosstalk of the device.

In contrast, the Bausch reference recites a system for measuring a parameter indicative of a channel mobility of an integrated circuit device. The Bausch reference recites a system for adjusting voltage applied to the integrated circuit to modify the "effective channel mobility" such that the "individual channel currents" are substantially constant over a predetermined operating temperature range. Applicants respectfully assert that this is

different than controlling, regulating, or otherwise influencing a level of crosstalk within an integrated circuit device. Applicants assert that the Bausch reference is directed specifically towards controlling channel mobility.

Thus, there is no teaching or suggestion in Bausch for any voltage supply circuit that controls the power supply voltage to maintain a substantially stable crosstalk level within the processor or within a semiconductor device.

Talbot is relied upon to allegedly teach a voltage supply circuit that is capable of controlling the power supply voltage of a processor to maintain a substantially stable crosstalk level within the processor. Applicants have reviewed the cited sections of Talbot and traverse this assertion (aol. 1, lines 25-32, lines 53-67; col. 2, lines 1-3, lines 38-51; aol. 4, lines 35- 58; aol. 5, lines 9-19; and cols. 6-7, lines 3-9).

Applicants understand Talbot to teach a low voltage transmitter and receiver adapted for differential signaling via transmission lines (Talbot col. 1, lines 25-32, lines 53-67; col. 2, lines 1-3). Such signaling is between multiple integrated circuits mounted on a common printed circuit board (e.g., between two or more separate integrated circuits). This is completely different from maintaining a distinctly stable crosstalk level within an integrated circuit (e.g., the processor) or semiconductor.

Talbot teaches differential data signals from differential drivers. Talbot also teaches a calibration system for a driver receiver pair on an integrated circuit for transmitting to and from other integrated circuits (Talbot col. 2, lines 38-51). Applicants assert that this is due to the fact that Talbot teaches differential signaling for transmitting signals from one integrated circuit to another integrated circuit without incurring crosstalk on the signal lines.

This is completely different from maintaining a substantially stable crosstalk level within the processor as recited in the claimed invention.

Talbot teaches controlling the voltage level of an output signal to maintain the performance of the transmission and matching the impedance of a driver to that of the transmission line to absorb signal reflections and backward crosstalk (Talbot col. 4, lines 35- 58) of the transmission system (Talbert figure 1). This is completely different from maintaining a substantially stable crosstalk level within the processor as recited in the claimed invention.

Talbot teaches current sources for use with resistors to match impedance of transmission lines to thereby absorb energy reflected back from a load to the receiver (Talbot col. 5, lines 9-19, and cols. 6-7, lines 3-9). This is completely different from maintaining a substantially stable crosstalk level within the processor as recited in the claimed invention.

Thus, since differential signaling between transmission lines between multiple integrated circuits is completely different from controlling the power supply voltage of a processor to maintain a substantially stable crosstalk level within the processor, as in the claimed invention, the combination of Talbot and Bausch to not show the limitations of the claimed invention. Accordingly, Applicants respectfully assert that the cited references do not render the claimed invention as recited by independent Claims 1, 9, and 17 obvious within the meaning of 35 U.S.C. Section 103(a).

CONCLUSION

All Claims (1-7, 9-36) of the present application are now in condition for allowance. The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application. Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,
WAGNER, MURABITO & HAO

Dated: 11/3, 2004

Glenn Barnes
Registration No. 42,293

Two North Market Street
Third Floor
San Jose, CA 95113
(408) 938-9060